

L1 STRUCTURE UPLOADED
L2 58 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 11:11:00 ON 28 AUG 2009
L3 11 S L2/PREP
L4 10 S L3 AND (PY<2003 OR AY<2003 OR PRY<2003)
L5 1 S L3 AND HYDROGENAT?
L6 15 S L2
L7 0 S L2 AND ASYMMETRIC
L8 1 S L2 AND HYDROGENAT?
L9 0 S L8 NOT L4

FILE 'REGISTRY' ENTERED AT 11:14:51 ON 28 AUG 2009
L10 STRUCTURE UPLOADED
L11 61 S L10 SSS FULL

FILE 'CAPLUS' ENTERED AT 11:15:31 ON 28 AUG 2009
L12 18 S L11
L13 1 S L12 AND HYDROGENAT?
L14 0 S L13 NOT L4
L15 14 S L11/PREP
L16 11 S L15 AND (PY<2003 OR AY<2003 OR PRY<2003)
L17 1 S L16 NOT L4
L18 2689 S ASYMMETRIC HYDROGENATION/IT

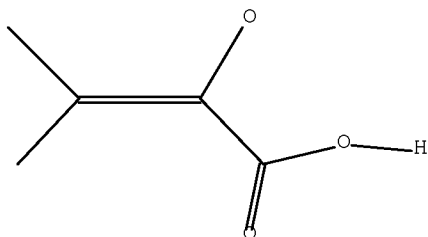
FILE 'REGISTRY' ENTERED AT 11:18:32 ON 28 AUG 2009
L19 STRUCTURE UPLOADED
L20 52 S L19 SSS FULL

FILE 'CAPLUS' ENTERED AT 11:19:12 ON 28 AUG 2009
L21 57 S L20
L22 0 S L20 AND L18

FILE 'REGISTRY' ENTERED AT 11:20:35 ON 28 AUG 2009
L23 STRUCTURE UPLOADED

L23 STRUCTURE UPLOADED

=> d 123
L23 HAS NO ANSWERS
L23 STR



L24 80 S L23 SSS FULL

FILE 'CAPLUS' ENTERED AT 11:21:04 ON 28 AUG 2009
S L23

FILE 'REGISTRY' ENTERED AT 11:21:07 ON 28 AUG 2009
L25 6 S L23

FILE 'CAPLUS' ENTERED AT 11:21:08 ON 28 AUG 2009
L26 4 S L25
L27 75 S L24
L28 1 S L27 AND L18

L28 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN

TI Enantioselective hydrogenation of α -aryloxy
 α,β -unsaturated acids. Asymmetric synthesis of
 α -aryloxycarboxylic acids

ACCESSION NUMBER: 2004:629985 CAPLUS Full-text

DOCUMENT NUMBER: 141:295691

TITLE: Enantioselective hydrogenation of α -aryloxy
 α,β -unsaturated acids. Asymmetric synthesis
of α -aryloxycarboxylic acids

AUTHOR(S): Maligres, Peter E.; Krska, Shane W.; Humphrey,
Guy R.

CORPORATE SOURCE: Department of Process Research, Merck & Co.,
Inc.,

SOURCE: Rahway, NJ, 07065, USA
Organic Letters (2004), 6(18), 3147-3150
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:295691

E YOKOZAWA TOHRU?/AU
L29 20 S E2
SET EXPAND CONTINUOUS
L30 13 S L29 AND L18
L31 11 S L30 AND (PY<2004 OR AY<2004 OR PRY<2004)

L31 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of optically active 4-acylaminotetrahydroquinolines via
asymmetric hydrogenation of enaminoesters.

ACCESSION NUMBER: 2004:718517 CAPLUS Full-text

DOCUMENT NUMBER: 141:243352

TITLE: Preparation of optically active
4-acylaminotetrahydroquinolines via asymmetric
hydrogenation of enaminoesters.

INVENTOR(S): Moroi, Takashi; Sotoguchi, Tsukasa; Matsumura,
Kazuhiko; Takenaka, Motonobu; Kuriyama, Wataru;
Murayama, Toshiyuki; Nara, Hideki; Yokozawa,
Tohru; Yagi, Kenji

PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004074255      A2      20040902      WO 2004-JP1757
20040217 <--
WO 2004074255      A3      20041125
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH,
      CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
GD,
      GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC,
      LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NI
      RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,
BE,
      BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,
LU,
      MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,
GN,
      GQ, GW, ML, MR, NE, SN, TD, TG
EP 1594843          A2      20051116      EP 2004-711758
20040217 <--
R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT,
      IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2006519783      T      20060831      JP 2006-502671
20040217 <--
US 20060122225      A1      20060608      US 2005-545899
20050817 <--
PRIORITY APPLN. INFO.:
20030218 <--

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L31 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of optically active amino alcohols by asymmetric
hydrogenation

of enaminones.

ACCESSION NUMBER: 2004:326179 CAPLUS Full-text

DOCUMENT NUMBER: 140:339187

TITLE: Preparation of optically active amino alcohols
by

asymmetric hydrogenation of enaminones.

INVENTOR(S): Yokozawa, Tohru; Yagi, Kenji; Saito, Takao

PATENT ASSIGNEE(S): Japan

SOURCE: Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1411045	A1	20040421	EP 2003-23628	
20031016 <--				
EP 1411045	B1	20080116		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				

PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 JP 2004155770 A 20040603 JP 2003-339801
 20030930 <--
 JP 4288311 B2 20090701
 AT 384038 T 20080215 AT 2003-23628
 20031016 <--
 US 20040082794 A1 20040429 US 2003-686598
 20031017 <--
 US 6984738 B2 20060110
 PRIORITY APPLN. INFO.: JP 2002-305147 A
 20021018 <--

L31 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 TI Diphosphine compound, production intermediate thereof, transition metal

complex containing the compound as ligand and asymmetric hydrogenation

catalyst containing the complex

ACCESSION NUMBER: 2003:971696 CAPLUS Full-text

DOCUMENT NUMBER: 140:28764

TITLE: Diphosphine compound, production intermediate thereof,

transition metal complex containing the compound as

ligand and asymmetric hydrogenation catalyst containing the complex

INVENTOR(S): Yokozawa, Tohru; Saito, Takao

PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20030228977	A1	20031211	US 2003-452729	
20030603 <--				
US 6794328	B2	20040921		
JP 2004010500	A	20040115	JP 2002-162463	
20020604 <--				
JP 4148702	B2	20080910		
EP 1371655	A1	20031217	EP 2003-291334	
20030604 <--				
EP 1371655	B1	20060823		

L31 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

TI Process for the asymmetric hydrogenation of β -keto esters producing homochiral alcohols

ACCESSION NUMBER: 2002:87191 CAPLUS Full-text

DOCUMENT NUMBER: 136:150937

TITLE: Process for the asymmetric hydrogenation of β -keto esters producing homochiral alcohols

INVENTOR(S): Saito, Takao; Matsumura, Kazuhiko; Yokozawa, Tohru; Sayo, Noboru
 PATENT ASSIGNEE(S): Takasago International Corporation, Japan
 SOURCE: Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1176135	A1	20020130	EP 2001-401953	
20010720 <--				
EP 1176135	B1	20050615		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002037760	A	20020206	JP 2000-223521	
20000725 <--				
AT 297886	T	20050715	AT 2001-401953	
20010720 <--				
ES 2243420	T3	20051201	ES 2001-401953	
20010720 <--				
CA 2353375	A1	20020125	CA 2001-2353375	
20010723 <--				
CA 2353375	C	20071002		
US 20020035283	A1	20020321	US 2001-909803	
20010723 <--				
US 6492545	B2	20021210		
NO 2001003643	A	20020128	NO 2001-3643	
20010724 <--				
NO 327147	B1	20090504		
TW 526192	B	20030401	TW 2001-90118022	
20010724 <--				
PRIORITY APPLN. INFO.:			JP 2000-223521	A
20000725 <--				

L31 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 TI Optically active diphosphine compound, production intermediates therefor,

transition metal complex containing the compound as ligand and asymmetric

hydrogenation catalyst containing the complex

ACCESSION NUMBER: 2001:319498 CAPLUS Full-text

DOCUMENT NUMBER: 134:326631

TITLE: Optically active diphosphine compound,

production

intermediates therefor, transition metal

complex

containing the compound as ligand and

asymmetric

hydrogenation catalyst containing the complex

INVENTOR(S): Yokozawa, Tohru; Sayo, Noboru; Saito, Takao;

Ishizaki, Takero

PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: Eur. Pat. Appl., 19 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1095946	A1	20010502	EP 2000-402997	
20001027 <--				
EP 1095946	B1	20030827		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO				
JP 2001131192	A	20010515	JP 1999-309976	
19991029 <--				
AT 248181	T	20030915	AT 2000-402997	
20001027 <--				
ES 2206162	T3	20040516	ES 2000-402997	
20001027 <--				
US 6333291	B1	20011225	US 2000-698208	
20001030 <--				

L31 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 TI New chiral diphosphine ligands designed to have a narrow dihedral angle in the biaryl backbone
 ACCESSION NUMBER: 2001:262994 CAPLUS Full-text
 DOCUMENT NUMBER: 135:76619
 TITLE: New chiral diphosphine ligands designed to have a narrow dihedral angle in the biaryl backbone
 AUTHOR(S): Saito, Takao; Yokozawa, Tohru; Ishizaki, Takero; Moroi, Takashi; Sayo, Noboru; Miura, Takashi;
 Kumobayashi, Hidenori
 CORPORATE SOURCE: Central Research Laboratory, Takasago International Corporation, Kanagawa, 254-0073, Japan
 SOURCE: Advanced Synthesis & Catalysis (2001), 343(3), 264-267
 CODEN: ASCAF7; ISSN: 1615-4150
 PUBLISHER: Wiley-VCH Verlag GmbH
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 135:76619
 CC 23-7 (Aliphatic Compounds)
 Section cross-reference(s): 29, 78
 IT Carbonyl compounds (organic), reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (SEGPPOS ruthenium complex catalyzed asym. hydrogenation of)
 IT 116-09-6 539-88-8, Ethyl levulinate 614-27-7, Methyl 3-oxo-3-phenylpropionate 638-07-3, Ethyl 4-chloro-3-oxobutanoate 5333-74-4 64920-29-2 67354-34-1, Ethyl 4-(benzyloxy)-3-

oxobutanoate

RL: RCT (Reactant); RACT (Reactant or reagent)
(SEGPPOS ruthenium complex catalyzed asym.
hydrogenation of)

IT 346457-41-8P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP
(Preparation);

USES (Uses)
(preparation as asym. hydrogenation catalyst)

L31 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of ruthenium chiral [4,4'-bi-1,3-benzodioxole]-5,5'-
diylldiphosphine complexes as asymmetric hydrogenation catalysts

ACCESSION NUMBER: 1999:631421 CAPLUS Full-text

DOCUMENT NUMBER: 131:251749

TITLE: Preparation of ruthenium chiral
[4,4'-bi-1,3-benzodioxole]-5,5'-diylldiphosphine
complexes as asymmetric hydrogenation catalysts

INVENTOR(S): Sayo, Noboru; Saito, Takao; Yokozawa, Tohru

PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 945457	A2	19990929	EP 1999-400657	
19990317 <--				
EP 945457	A3	20001213		
EP 945457	B1	20040811		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT,				
IE, SI, LT, LV, FI, RO				
JP 11269185	A	19991005	JP 1998-92174	
19980323 <--				
JP 3549390	B2	20040804		
US 6313317	B1	20011106	US 1999-273260	
19990322 <--				
PRIORITY APPLN. INFO.:			JP 1998-92174	A
19980323 <--				

L31 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of chiral (5,6), (5',6')-bis(3,4-
methylenedioxy)biphenyl-2,2'-

diylphosphine compound, intermediate for preparing the same,
transition

metal complex having the same diphosphine compound as ligand and
asymmetric hydrogenation catalyst

ACCESSION NUMBER: 1998:466349 CAPLUS Full-text

DOCUMENT NUMBER: 129:124055

ORIGINAL REFERENCE NO.: 129:25383a, 25386a

TITLE: Preparation of chiral
(5,6), (5',6')-bis(3,4-methylenedioxy)biphenyl-

2,2'-

preparing the

diylphosphine compound, intermediate for

same, transition metal complex having the same
diphosphine compound as ligand and asymmetric
hydrogenation catalyst

INVENTOR(S):

Saito, Takao; Yokozawa, Tohru; Xiaoyaong,
Zhang; Sayo, Noboru

PATENT ASSIGNEE(S):

Takasago International Corp., Japan

SOURCE:

Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 850945	A1	19980701	EP 1997-403152	
19971224 <--				
EP 850945	B1	20021127		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT,				
IE, SI, LT, LV, FI, RO				
JP 10182678	A	19980707	JP 1996-359818	
19961226 <--				
JP 3148136	B2	20010319		
US 5872273	A	19990216	US 1997-996405	
19971222 <--				

L31 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

TI Method for producing optically active diphosphines for use as
ligands of

ruthenium and rhodium asym. hydrogenation catalysts

ACCESSION NUMBER: 1997:433402 CAPLUS Full-text

DOCUMENT NUMBER: 127:50792

ORIGINAL REFERENCE NO.: 127:9697a,9700a

TITLE: Method for producing optically active
diphosphines for

use as ligands of ruthenium and rhodium asym.
hydrogenation catalysts

INVENTOR(S):

Sayo, Noboru; Zhang, Xiaoyong; Oh, Tatsuya;

Yoshida,

Akifumi; Yokozawa, Tohru

PATENT ASSIGNEE(S):

Takasago International Corporation, Japan

SOURCE:

Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 771812	A1	19970507	EP 1996-402306	

19961030 <--
 EP 771812 B1 20031210
 R: CH, DE, FR, GB, IT, LI, NL
 JP 09124669 A 19970513 JP 1995-305211
 19951031 <--
 JP 3770639 B2 20060426
 US 5693868 A 19971202 US 1996-740506
 19961030 <--
 JP 2005343903 A 20051215 JP 2005-215523
 20050726 <--
 JP 4006453 B2 20071114

L31 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
 TI Chiral unsymmetric diphosphine compounds and transition metal
 complexes

containing them as ligands
 ACCESSION NUMBER: 1997:204039 CAPLUS Full-text
 DOCUMENT NUMBER: 126:199669
 ORIGINAL REFERENCE NO.: 126:38603a,38606a
 TITLE: Chiral unsymmetric diphosphine compounds and
 transition metal complexes containing them as
 ligands
 INVENTOR(S): Sayo, Noboru; Zhang, Xiaoyong; Omoto, Tatsuya;
 Yokozawa, Tohru; Yamasaki, Tetsuro;
 Kumobayashi, Hidenori
 PATENT ASSIGNEE(S): Takasago International Corporation, Japan
 SOURCE: Eur. Pat. Appl., 16 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 754696	A1	19970122	EP 1996-305305	
19960719 <--				
EP 754696	B1	20020116		
R: CH, DE, FR, GB, IT, LI				
JP 09031084	A	19970204	JP 1995-206696	
19950721 <--				
JP 3338243	B2	20021028		
US 5808162	A	19980915	US 1996-683199	
19960718 <--				
PRIORITY APPLN. INFO.:			JP 1995-206696	A
19950721 <--				
OTHER SOURCE(S):			CASREACT 126:199669; MARPAT 126:199669	
IC ICM C07F009-50				
ICS C07F009-53; C07F009-6553; C07F015-00; C07B053-00				

E SHIMIZU HIDEO?/AU
 L32 308 S E13-E14
 L33 10 S L32 AND L18
 L34 4 S L33 AND (PY<2004 OR AY<2004 OR PRY<2004)

L34 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

TI Process for preparation of optically active 3-(4-hydroxyphenyl)propionic

acids by reaction of protected 4-hydroxybenzaldehydes and glycolic acid

derivatives to give cinnamates and asymmetric hydrogenation of the latter.

ACCESSION NUMBER: 2005:490344 CAPLUS Full-text

DOCUMENT NUMBER: 143:43684

TITLE: Process for preparation of optically active 3-(4-hydroxyphenyl)propionic acids by reaction

of

protected 4-hydroxybenzaldehydes and glycolic acid

derivatives to give cinnamates and asymmetric hydrogenation of the latter.

INVENTOR(S): Yokozawa, Tohru; Shimizu, Nideo; Fujiwara, Takahiro; Ino, Yasunori

PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005051882	A1	20050609	WO 2004-JP17998	
20041126 <--				
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

L34 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

TI Novel phosphine compound, transition metal complex containing the same

phosphine compound as ligand and asymmetric synthesis catalyst
containing

the complex

ACCESSION NUMBER: 2003:590801 CAPLUS Full-text

DOCUMENT NUMBER: 139:149755

TITLE: Novel phosphine compound, transition metal
complex

ligand and containing the same phosphine compound as

complex asymmetric synthesis catalyst containing the

INVENTOR(S): Shimizu, Hideo; Saito, Takao

PATENT ASSIGNEE(S): Takasago International Corp., Japan

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20030144139	A1	20030731	US 2002-330495	
20021230 <--				
US 6717016	B2	20040406		
JP 2003226696	A	20030812	JP 2002-23568	
20020131 <--				
JP 4013217	B2	20071128		
EP 1334976	A1	20030813	EP 2003-290239	
20030130 <--				
EP 1334976	B1	20060308		

L34 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN

TI Synthesis of novel chiral benzophospholanes and their application
in

asymmetric hydrogenation

ACCESSION NUMBER: 2003:129903 CAPLUS Full-text

DOCUMENT NUMBER: 139:69317

TITLE: Synthesis of novel chiral benzophospholanes and
their

application in asymmetric hydrogenation

AUTHOR(S): Shimizu, Hideo; Saito, Takao; Kumobayashi,
Hidenori

CORPORATE SOURCE: Central Research Laboratory, Takasago
International

SOURCE: Corporation, Kanagawa, 254-0073, Japan
Advanced Synthesis & Catalysis (2003),
345(1+2), 185-189

CODEN: ASCAF7; ISSN: 1615-4150

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:69317

L34 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2009 ACS on STN
 TI Synthesis and application of chiral phospholane ligands bearing a
 sterically and electrically adjustable moiety
 ACCESSION NUMBER: 2003:129902 CAPLUS Full-text
 DOCUMENT NUMBER: 139:69031
 TITLE: Synthesis and application of chiral phospholane
 ligands bearing a sterically and electrically
 adjustable moiety
 AUTHOR(S): Matsumura, Kazuhiko; Shimizu, Hideo; Saito,
 Takao; Kumobayashi, Hidenori
 CORPORATE SOURCE: Central Research Laboratory, Takasago
 International
 SOURCE: Corporation, Kanagawa, 254-0073, Japan
 Advanced Synthesis & Catalysis (2003),
 345(1+2), 180-184
 CODEN: ASCAF7; ISSN: 1615-4150
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 139:69031
 CC 25-22 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 IT Ligands

E FUJIWARA TAKAHIRO?/AU
 L35 107 S E25-E26
 L36 4 S L35 AND L18
 L37 2 S L36 AND (PY<2004 OR AY<2004 OR PRY<2004)

L37 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
 TI Process for preparation of optically active 3-(4-
 hydroxyphenyl)propionic
 acids by reaction of protected 4-hydroxybenzaldehydes and glycolic
 acid

derivatives to give cinnamates and asymmetric hydrogenation of the
 latter.

ACCESSION NUMBER: 2005:490344 CAPLUS Full-text
 DOCUMENT NUMBER: 143:43684
 TITLE: Process for preparation of optically active
 3-(4-hydroxyphenyl)propionic acids by reaction
 of
 protected 4-hydroxybenzaldehydes and glycolic
 acid

derivatives to give cinnamates and asymmetric
 hydrogenation of the latter.

INVENTOR(S): Yokozawa, Tohru; Shimizu, Hideo; Fujiwara,
 Takahiro; Ino, Yasunori
 PATENT ASSIGNEE(S): Takasago International Corporation, Japan
 SOURCE: PCT Int. Appl., 95 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005051882      A1      20050609      WO 2004-JP17998
20041126 <--
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH,      CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
GD,      GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC,      LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NI,      NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
SY,      TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW      RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM,      AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
DK,      EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT,
RO,      SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR,      NE, SN, TD, TG
EP 1687250      A1      20060809      EP 2004-819490
20041126 <--
R:  CH, DE, ES, FR, GB, LI, IE
JP 2007512222      T      20070517      JP 2006-520429
20041126 <--
US 20070142472      A1      20070621      US 2006-578744
20060510 <--
PRIORITY APPLN. INFO.:      JP 2003-398201      A
20031127 <--
WO 2004-JP17998      W
20041126
OTHER SOURCE(S):      CASREACT 143:43684; MARPAT 143:43684
IC  ICM  C07C051-36
ICS  C07C059-64
CC  25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
IT  Hydrogenation
(stereoselective; preparation of optically active
hydroxyphenylpropionates
by reaction of protected hydroxybenzaldehydes and glycolic acid
derivs.
to give cinnamates and asym. hydrogenation of the
latter)
IT  477982-28-8P  853562-54-6P  853562-55-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
(Preparation)
(optically active; preparation of optically active
hydroxyphenylpropionates
by reaction of protected hydroxybenzaldehydes and glycolic acid
derivs.
to give cinnamates and asym. hydrogenation of the
latter)
IT  169222-57-5  244239-57-4  853562-59-1
RL: CAT (Catalyst use); USES (Uses)
(preparation of optically active hydroxyphenylpropionates by

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reaction of
protected hydroxybenzaldehydes and glycolic acid derivs. to give
cinnamates and asym. hydrogenation of the latter)
IT 38291-52-0P 38291-54-2P 853562-56-8P 853562-57-9P 853562-
58-0P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic
preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of optically active hydroxyphenylpropionates by
reaction of
protected hydroxybenzaldehydes and glycolic acid derivs. to give
cinnamates and asym. hydrogenation of the latter)

IT 123-08-0, 4-Hydroxybenzaldehyde 4397-53-9, 4-
Benzyloxybenzaldehyde

6290-49-9, Methyl methoxyacetate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of optically active hydroxyphenylpropionates by
reaction of

protected hydroxybenzaldehydes and glycolic acid derivs. to give
cinnamates and asym. hydrogenation of the latter)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD

(1 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L37 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

TI Process for the production of optically active cyclic amino
alcohols

ACCESSION NUMBER: 2004:213303 CAPLUS Full-text

DOCUMENT NUMBER: 140:270561

TITLE: Process for the production of optically active
cyclic

amino alcohols

INVENTOR(S): Fujiwara, Takahiro; Nara, Hideki; Sotoguchi,
Tsukasa

PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1398310	A1	20040317	EP 2003-255584	
20030908 <--				
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT,				
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004149511	A	20040527	JP 2003-186728	
20030630 <--				
US 20040063999	A1	20040401	US 2003-656617	
20030904 <--				

US 7038087 B2 20060502
 PRIORITY APPLN. INFO.: JP 2002-262019 A
 20020906 <-- JP 2003-186728 A
 20030630 <--
 OTHER SOURCE(S): CASREACT 140:270561; MARPAT 140:270561
 IC ICM C07C213-02
 ICS C07C215-44; C07C269-02; C07C271-24
 CC 24-5 (Alicyclic Compounds)
 Section cross-reference(s): 45
 IT Phosphines
 RL: CAT (Catalyst use); USES (Uses)
 (chiral ligands for asym. hydrogenation; process
 for the production of optically active cyclic amino alcs.)
 IT 346457-41-8 672310-39-3 672310-40-6
 RL: CAT (Catalyst use); USES (Uses)
 (asym. hydrogenation catalyst; process for the
 production of optically active cyclic amino alcs.)
 IT 7440-18-8D, Ruthenium, complexes
 RL: CAT (Catalyst use); USES (Uses)
 (asym. hydrogenation catalysts; process for the
 production of optically active cyclic amino alcs.)
 IT 1655-07-8, Methyl 2-oxocyclohexane-1-carboxylate 10472-24-9,
 Methyl
 2-oxocyclopentane-1-carboxylate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (asym. hydrogenation of; process for the production of
 optically active cyclic amino alcs.)

 E INO YASUNORI?/AU
 L38 9 S E37-E38
 L39 1 S L38 AND L18

 L39 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN
 TI Process for preparation of optically active 3-(4-
 hydroxyphenyl)propionic
 acids by reaction of protected 4-hydroxybenzaldehydes and glycolic
 acid
 derivatives to give cinnamates and asymmetric hydrogenation of the
 latter.
 ACCESSION NUMBER: 2005:490344 CAPLUS Full-text
 DOCUMENT NUMBER: 143:43684
 TITLE: Process for preparation of optically active
 3-(4-hydroxyphenyl)propionic acids by reaction
 of
 protected 4-hydroxybenzaldehydes and glycolic
 acid
 derivatives to give cinnamates and asymmetric
 hydrogenation of the latter.
 INVENTOR(S): Yokozawa, Tohru; Shimizu, Hideo; Fujiwara,
 Takahiro;
 Ino, Yasunori
 PATENT ASSIGNEE(S): Takasago International Corporation, Japan
 SOURCE: PCT Int. Appl., 95 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
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WO 2005051882	A1	20050609	WO 2004-JP17998	
20041126				
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RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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20060510				
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20031127				
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	by reaction of protected hydroxybenzaldehydes and glycolic acid derivs.			
	to give cinnamates and asym. hydrogenation of the latter)			
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	RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)			
	(optically active; preparation of optically active hydroxyphenylpropionates			

by reaction of protected hydroxybenzaldehydes and glycolic acid
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IT 169222-57-5 244239-57-4 853562-59-1

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58-0P

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(preparation of optically active hydroxyphenylpropionates by
reaction of

protected hydroxybenzaldehydes and glycolic acid derivs. to give
cinnamates and asym. hydrogenation of the latter)

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RL: RCT (Reactant); RACT (Reactant or reagent)

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protected hydroxybenzaldehydes and glycolic acid derivs. to give
cinnamates and asym. hydrogenation of the latter)